Restricted Circulation

This paper is not an official document; it is for information only and reference cannot be made to it in any printed publication without the permission of the author.

Agricultural Memorandum No 542

Cow Infertility - Monthly Analysis

L P SMITH

The AI success-rate, (ie non-return rate) for 23 centres for the years 1960-1966 were examined by comparing the 6-year monthly average against herd size and mean "dry-days" (see Ag Mem 541). The results were:-

Month	Total Correlations		Partial Correlations	
	Herd	Dry Days	Herd	Dry Days
January	-0.73	-0.88	-0.42	-0.78
February	-0.74	-0.89	-0.47	-0.80
March	-0.69	-0.88	-0.31	-0.78
April	-0.54	-0.71	-0.13	-0.56
May	-0.72	-0.75	-0.47	-0.53
June	-0.67	-0.86	-0.28	-0.75
July	-0.64	-0.78	-0.28	-0.62
August	-0.61	-0.56	-0.39	-0.27
September	-0.75	-0.78	-0.50	-0.59
October	-0.73	-0.78	-0.47	-0.58
November	-0.65	-0.88	-0.20	-0.79
December	-0.69	-0.89	-0.32	-0.80

These figures imply that with the exception of August, the unknown factor connected with days when growing grass is short of soil moisture is more significant than herd size.

They also suggest that this factor is most important during the recorded period. November to March, which covers inseminationsfrom September to January (the non-return for a second insemination being recorded 30-60 days later).

The non-significance of August can be explained by the fact that this refers to inseminations in June and July, and cows at that time would have been feeding on the normally good grass of April and May.

The April-July period is more likely to be affected by conserved fodder and this probably demands a different criterion related to hay or silage making.

The partial correlation of the mean Nov-March percentage on dry days is -0.85; on herd size, it is -0.42.

Any comments or suggestions on this paper should be referred to the author.

Meteorological Office
Bracknell

March 1973